UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,094	10/30/2000	Robert B. Friedman	39518/248882	7881

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EXAMINER
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ART UNIT	PAPER NUMBER
2157	8

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	**Application No.** 09/702,094	**Applicant(s)** FRIEDMAN ET AL.
	Examiner Avi Gold	**Art Unit** 2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>4,5,6,7</u> .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

This action is responsive to the application filed October 30, 2000. Claims 1-31

are pending. Claims 1-31 represent a geo-intelligent traffic manager.

Information Disclosure Statement

1.   The information disclosure statement filed December 11, 2000 fails to comply

with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent;

each publication or that portion which caused it to be listed; and all other information or

that portion which caused it to be listed. It has been placed in the application file, but

the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claim 20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

4.   The claims are generally narrative and indefinite, failing to conform with current

U.S. practice. They appear to be a literal translation into English from a foreign

document and are replete with grammatical and idiomatic errors.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

6.   Claims 1,4-7, 9-11, 14-27, and 30-31 are rejected under 35 U.S.C. 102(e) as

being anticipated by Leinwand et al., U.S. Patent No. 6,130,890.

Leinwand teaches the invention as claimed including a method and system for

improving routing decisions, particularly for Internet data packets traveling to a

destination associated with another country (see abstract).

Regarding claim 1, a method for routing network traffic, comprising:

receiving the network traffic (col. 3, lines 9-11, Leinwand discloses a packet traveling

over a system from source to destination);

determining a destination for the network traffic (col. 3, lines 11-13, Leinwand discloses

a destination in a geographic area);

obtaining geographic information on one of a source or the destination associated with

the network traffic from a map of the network, the map being produced as a result of:

determining a route through the network which includes one of the destination or

source (col. 3, lines 9-11);

deriving a geographic location of any intermediate hosts contained within the

route through the network (col. 2, lines 14-19, Leinwand discloses autonomous systems

acting as intermediate nodes to route a packet to its destination; col. 3, lines 33-44,

Leinwand discloses autonomous systems having a geographic locations);

analyzing the route and the geographic locations of any intermediate hosts (col.

7, lines 5-25, Leinwand discloses routers making a decision as to which of the

autonomous systems the data packet is going to next);

determining the geographic location of the source or destination (col. 3, lines 11-

13, Leinwand discloses separate geographic location for source and destination); and

storing the geographic location in the map (col. 15, lines 19-34, Leinwand

discloses an autonomous system being mapped according to its geographic location);

and

directing the network traffic to a desired destination based on the geographic location of

the source or destination (col. 3, lines 9-34, Leinwand discloses a packet being routed

to its destination based on its source or destination location).

Regarding claim 4, the method as set forth in claim 1, wherein receiving the

network traffic comprises receiving a request at a host server (col. 2, lines 14-20,

Leinwand discloses autonomous systems requesting traffic).

Regarding claim 5, the method as set forth in claim 1, wherein the network traffic

comprises a request, the desired destination comprises a desired server, and wherein

directing the network traffic comprises directing the request to the desired server based

on the geographic location (col. 1, lines 39-50, Leinwand discloses a destination being

linked to a geographic region and the traffic being directed to it based on it location).

Regarding claim 6, the method as set forth in claim 1, wherein directing the network traffic to the desired destination comprises selecting a route with a shortest distance to the desired destination (col. 7, lines 46-52, Leinwand discloses choosing the route having the shortest length).

Regarding claim 7, the method as set forth in claim 1, wherein directing the network traffic to the desired destination comprises selecting a route to the desired destination having the shortest latency time (col. 9, lines 22-39, Leinwand discloses choosing a route to avoid delays in transmission).

Regarding claim 9, the method as set forth in claim 1, wherein directing the network traffic to the desired destination comprises selecting the desired destination based on its load (col. 11, lines 5-24, Leinwand discloses choosing a route to avoid congestion).

Regarding claim 10, the method as set forth in claim 1, wherein the geographic location comprises the geographic location of the source and directing the network traffic to the desired destination comprises selecting the desired destination because it has content associated with the geographic location (col. 11, lines 39-50, Leinwand discloses a phone call being routed to a geographic region in which the physical destination of the call is located).

Regarding claim 11, the method as set forth in claim 1, wherein directing the network traffic to the desired destination comprises selecting the desired destination based on a connection speed associated with the source (col. 11, lines 5-24, Leinwand discloses choosing a route having the fastest speed for the data packet).

Regarding claim 14, the method as set forth in claim 1, wherein directing the network traffic comprises selecting a route based on interconnection speeds within the network (col. 11, lines 5-24, Leinwand discloses choosing a route having the fastest speed between nodes for the data packet).

Regarding claim 15, the method as set forth in claim 1, further comprising analyzing the network (col. 7, lines 5-25, Leinwand discloses a router making a decision as to which route to take).

Regarding claim 16, the method as set forth in claim 15, wherein analyzing comprises analyzing interconnections between nodes in the network (col. 7, lines 5-25, Leinwand discloses each interconnected router making a decision which route to go to the destination).

Regarding claim 17, the method as set forth in claim 15, wherein analyzing comprises analyzing nodes within the network (col. 7, lines 5-25, Leinwand discloses each router making a decision once it receives the data).

Regarding claim 18, the method as set forth in claim 15, wherein analyzing comprises modeling behavior of the network (col. 7, lines 5-25, Leinwand discloses routers choosing routes for the packets).

Regarding claim 19, the method as set forth in claim 18, wherein modeling comprises approximating the behavior at nodes (col. 7, lines 5-23, Leinwand discloses autonomous systems receiving reachability information in order to determine the routes).

Regarding claim 20, the method as set forth in claim 18, wherein modeling comprises simplifying the map of the network by combining nodes in traffic routes (col. 1, lines 39-50, Leinwand discloses calls routed to a geographic region; col. 2, lines 21-32, Leinwand discloses router acting as a node for data to access multiple routes).

Regarding claim 21, the method as set forth in claim 1, wherein obtaining the geographic information comprises generating the map of the network (col. 15, lines 19-34).

Regarding claim 22, the method as set forth in claim 1, wherein obtaining the geographic information comprises querying a system for the geographic information and receiving a response from the system with the geographic information (col. 3, lines 9-44, Leinwand discloses obtaining information relating to an autonomous system which includes its geographic information).

Regarding claim 23, the method as set forth in claim 1, wherein the network comprises the Internet and the network traffic comprises packets (col. 4, lines 36-38, Leinwand discloses network traffic comprised of packets routed over the Internet).

Claims 24-27 and 30-31 do not teach or define any new limitations above claims 1, 7, 9, and 11 and therefore are rejected for similar reasons.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leinwand further in view of Zhang et al., U.S. Patent No. 6,324,585.

Leinwand teaches the invention substantially as claimed including a method and system for improving routing decisions, particularly for Internet data packets traveling to a destination associated with another country (see abstract).

As to claims 2 and 3, Leinwand teaches the method of claim 1.

Leinwand fails to teach the limitation further including the use of a domain name service inquiry.

However, Zhang teaches a method and apparatus for resolving a Domain Name Service request in a system where it is possible for the user to connect to more than one network at a time (see abstract). Zhang teaches the use of domain name service (col. 1, lines 34-42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinwand in view of Zhang to use a domain name service inquiry. One would be motivated to do so because a domain name service enables the central managing of host names to IP addresses.

9.   Claims 8, 12, 13, 28, and 29 rejected under 35 U.S.C. 103(a) as being unpatentable over Leinwand further in view of Buhrke et al., U.S. Patent No. 5,231,631.

Leinwand teaches the invention substantially as claimed including a method and system for improving routing decisions, particularly for Internet data packets traveling to a destination associated with another country (see abstract).

As to claims 8, 12, 13, 28, and 29, Leinwald teaches the method of claims 1 and 24.

Leinwand fails to teach the limitation further including the selection of a route based on bandwidth.

However, Buhrke teaches a method and apparatus for controlling overflow traffic in a data network (see abstract). Buhrke teaches the use of selecting a route based on having the most available bandwidth, selecting the amount of bandwidth available at the destination, and selecting the destination based on the amount of bandwidth available at it (col. 1, lines 65-67; col. 2, lines 1-66).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinwand in view of Buhrke to select a route of traffic based on bandwidth. One would be motivated to do so because decisions based on bandwidth help avoid congestion in data traffic.

Claims 28 and 29 do not teach or define any new limitations above claims 8 and 13 and therefore are rejected for similar reasons.

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,272,150 to Hrastar et al.

U.S. Pat. No. 6,266,607 to Meis et al.

U.S. Pat. No. 6,151,631 to Ansell et al.

U.S. Pat. No. 6,285,748 to Lewis.

U.S. Pat. No. 6,347,078 to Narvaez-Guarnieri et al.

U.S. Pat. No. 5,774,668 to Choquier et al.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Avi Gold whose telephone number is 703-305-8762.

The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

9600.

Avi Gold

Patent Examiner

Art Unit 2157

AMG

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